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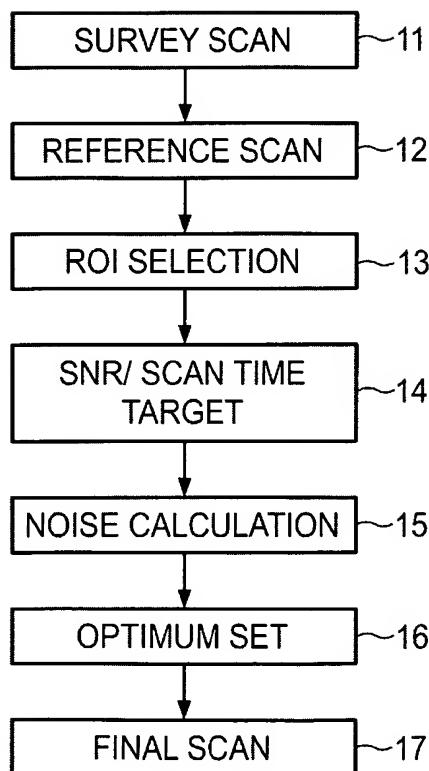
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(54) Title: PRESCAN FOR OPTIMIZATION OF MRI SCAN PARAMETERS



(57) **Abstract:** The invention relates to a method and apparatus for generating magnetic resonance images. In order to achieve high quality magnetic resonance imaging combined with a user-friendly operating of a magnetic resonance apparatus it is proposed to use data obtained from a reference scan comprising SENSE reference data to determine an optimum scan parameter set taking into account a chosen target value of a specific scan parameter such as the scan time or the signal-to-noise ratio. Based on the reference scan, image noise is predicted for various sets of scan parameters (alternative use of SENSE or intrinsic foldover without SENSE; various orientations of the phase encoding direction within the slice plane). An optimum scan parameter set is determined (shortest scan time to match target SNR or highest SNR to match target scan time).

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